

NATURAL RESOURCES CONSERVATION SERVICE CONSERVATION PRACTICE STANDARD

LAND SMOOTHING

(Ac.)

CODE 466

DEFINITION

Removing irregularities on the land surface.

PURPOSE

To improve surface drainage, provide for more uniform cultivation, and improve equipment operation and efficiency.

For cranberry bogs, land smoothing is used to construct a more level bog to reduce the amount of flooding water needed for cranberry production.

CONDITION WHERE PRACTICE APPLIES

This practice applies on areas where depressions, mounds, old terraces, turn-rows, and other surface irregularities interfere with the application of needed soil and water conservation and management practices.

It is limited to areas having adequate soil depth or where topsoil can be salvaged and replaced.

This practice does not apply to the regular maintenance on irrigated land or on land that has been modified using practice standards Precision Land Forming (462) or Irrigation Land Leveling (464).

On cranberry bogs, this practice applies where:

- Leveling of the bog is included in an overall irrigation water management plan; and
- Leveling of the bog will reduce the amount of water required to adequately flood the bog for harvesting, trash removal, winter protection, pest control, or other purposes.

CRITERIA

The extent of rough grading required and tolerances of the finished smoothing job shall be in keeping with the requirements of the planned cropping system.

Construction operations shall be carried out in such a manner that erosion and air and water pollution are minimized.

Irregularities shall be smoothed to the degree required for the planned use.

The land to be smoothed shall be cleared of vegetative matter and trash.

For cranberry bogs, the extent of land smoothing required and tolerances of the finished job shall be in keeping with the irrigation water management plan. The smoothed bog shall be as flat as practical to minimize the amount of water needed for flooding, while maintaining adequate surface drainage to the bog ditches, as needed.

CONSIDERATIONS

Where possible, the ground surface should be plowed or disked prior to smoothing.

Effects on the water budget, especially on volumes and rates of runoff, infiltration, and evaporation.

Effect on erosion and the movement of sediment and soluble substances attached to sediment carried by runoff.

Potential for earth moving to uncover or redistribute toxic materials, such as saline soils.

Effects on wetland hydrology and/or wetland wildlife habitat.

Potential impacts to existing utilities.

Effects on soil loss due to increased wind erosion potential and subsequent deposition.

PLANS AND SPECIFICATIONS

Plans and specifications for land smoothing shall be in keeping with this standard and shall describe the requirement for applying the practice to achieve its intended purpose.

OPERATION AND MAINTENANCE

Actions shall be carried out to ensure that this practice functions as intended. Such actions shall include performing maintenance when needed to ensure that surface irregularities are maintained at the degree of smoothness required.